

Please AMEND the CLAIMS as follows:

1. (Previously Presented) In a backup cable modem termination system, a method of restoring transmission of messages between one or more cable modems and the backup cable modem termination system upon failure of an active cable modem termination system, the method comprising:

receiving by the backup cable modem termination system subscriber information associated with the one or more cable modems from the active cable modem termination system, the subscriber information including one or more subscriber identifiers;

prioritizing the one or more cable modems by the backup cable modem termination system using at least one of the subscriber information or a time of receipt of the subscriber information, the prioritized cable modems indicating an order in which the transmission of messages between the one or more cable modems and the backup cable modem termination system is to be restored; and

polling the one or more cable modems by the backup cable modem termination system in the order indicated by the prioritized cable modems such that communication between the one or more cable modems and the backup cable modem termination system is established in the order indicated by the prioritized cable modems, thereby enabling the transmission of messages between the one or more cable modems and the backup cable modem termination system to be restored.

2. (Previously Presented) The backup cable modem termination system as recited in claim 34, wherein at least one of the processor or the memory being further adapted for performing prioritizing and polling in response to a failover trigger from the active cable modem termination system.

3. (Previously Presented) The backup cable modem termination system as recited in claim 34, at least one of the processor or the memory being further adapted for:

determining that the active cable modem termination system has failed;

wherein prioritizing and polling are performed after determining that the active cable modem termination system has failed.

4. (Original) The method as recited in claim 1, wherein the subscriber information identifies those modems that have ranged successfully.

5. (Original) The method as recited in claim 1, wherein receiving the subscriber information occurs after a specified period of time or after a call is received by the active cable modem termination system from one or more of the cable modems.

6. (Previously Presented) The backup cable modem termination system as recited in claim 34, at least one of the processor or the memory being further adapted for:

storing the subscriber information after receiving the subscriber information;

wherein prioritizing the cable modems comprises prioritizing subscribers associated with the cable modems using the stored subscriber information.

7. (Original) The method as recited in claim 1, wherein the subscriber information associated with each of the cable modems comprises a primary subscriber identifier that identifies the associated cable modem.

8. (Original) The method as recited in claim 7, wherein the subscriber information further comprises a MAC address associated with the cable modem.

9. (Original) The method as recited in claim 7, wherein at least a portion of the subscriber information further comprises a secondary subscriber identifier.

10. (Original) The method as recited in claim 9, wherein the secondary subscriber identifier indicates that the messages to be transmitted between the backup cable modem termination system and the associated cable modem are to be transmitted in real-time.

11. (Original) The method as recited in claim 9, wherein the secondary subscriber identifier indicates whether the messages to be transmitted between the backup cable modem termination system and the associated cable modem include voice data or video data.

12. (Original) The method as recited in claim 9, wherein the subscriber information further comprises quality of service requirements.

13. (Original) The method as recited in claim 9, wherein at least a portion of the subscriber information further comprises a scheduling type.

14. (Original) The method as recited in claim 13, wherein the scheduling type indicates a type of real-time traffic to be transmitted.

15. (Original) The method as recited in claim 13, wherein the secondary subscriber identifier indicates that the messages to be transmitted between the backup cable modem termination system and the associated cable modem are to be transmitted in real-time.

16. (Original) The method as recited in claim 13, wherein the scheduling type indicates whether the messages to be transmitted between the backup cable modem termination system and the associated cable modem include voice data or video data.

17. (Previously Presented) The method as recited in claim 13, wherein the scheduling type is Unsolicited Grant Service or Unsolicited Grant with Activity Detection.

18. (Previously Presented) The method as recited in claim 13, wherein prioritizing the cable modems comprises:

searching the subscriber information associated with the cable modems for a secondary subscriber identifier; and

prioritizing each of the cable modems with subscriber information having a secondary subscriber identifier such that the cable modems with subscriber information having a secondary subscriber identifier have a higher priority than each of the cable modems with subscriber information not having a secondary subscriber identifier;

19. (Previously Presented) The method as recited in claim 18, wherein prioritizing each of the cable modems with subscriber information having a secondary subscriber identifier further comprises:

prioritizing each of the cable modems with subscriber information having a secondary subscriber identifier according to the scheduling type.

20. (Previously Presented) The method as recited in claim 19, wherein prioritizing each of the cable modems with subscriber information having a secondary identifier further comprises:

prioritizing each of the cable modems with subscriber information having a secondary identifier according to time of receipt of the subscriber information from the active cable modem termination system.

21. (Previously Presented) The method as recited in claim 18, wherein prioritizing each of the cable modems with subscriber information having a secondary identifier further comprises:

prioritizing each of the cable modems with subscriber information not having a secondary identifier according to time of receipt of the subscriber information from the active cable modem termination system.

22. (Previously Presented) The method as recited in claim 1, wherein prioritizing the cable modems comprises:

storing the subscriber information and a time of receipt of the subscriber information by the backup cable modem termination system such that the subscriber information is associated with the time of receipt.

23. (Previously Presented) The method as recited in claim 22, wherein the subscriber information is stored in order of the time of receipt.

24. (Previously Presented) The backup cable modem termination system as recited in claim 34, at least one of the processor or the memory being further adapted for:

storing the subscriber information and a time of receipt of the subscriber information by the backup cable modem termination system such that the subscriber information is associated with the time of receipt.

25. (Previously Presented) The backup cable modem termination system as recited in claim 24, at least one of the processor or the memory being further adapted for:

prioritizing the cable modems according to the time of receipt of the corresponding subscriber information.

26. (Previously Presented) The backup cable modem termination system as recited in claim 34, further comprising:

after receiving the subscriber information, sending an acknowledgement of the subscriber information to the active cable modem termination system.

27. (Previously Presented) The backup cable modem termination system as recited in claim 34, at least one of the processor or the memory being further adapted for:

repeatedly receiving subscriber information associated with one or more cable modems from an active cable modem termination system prior to prioritizing the cable modems.

28. (Previously Presented) The backup cable modem termination system as recited in claim 27, at least one of the processor or the memory being further adapted for:

receiving subscriber information associated with one or more cable modems from a first active cable modem termination system and receiving subscriber information associated with one or more cable modems from a second active cable modem termination system; and

wherein prioritizing the cable modems comprises prioritizing the cable modems associated with the first active cable modem termination system is performed separately from prioritizing the cable modems associated with the second active cable modem termination system.

29. (Previously Presented) The backup cable modem termination system as recited in claim 28, at least one of the processor or the memory being further adapted for:

storing information corresponding to the prioritized cable modems associated with the first active cable modem termination system separately from information corresponding to the prioritized cable modems associated with the second active cable modem termination system.

30. (Previously Presented) The backup cable modem termination system as recited in claim 34, at least one of the processor or the memory being further adapted for:

receiving an indication that an active cable modem termination system has failed;

determining an identity of the failed active cable modem termination system; and

wherein receiving subscriber information associated with one or more cable modems from the active cable modem termination system comprises obtaining the subscriber information associated with the failed active cable modem termination system.

31. (Previously Presented) The method as recited in claim 1, further comprising:

receiving an indication that a call initiated by one of the cable modems has been terminated; and

removing subscriber information associated with the one of the cable modems from memory associated with a previously failed active cable modem termination system.

32. (Previously Presented) A computer-readable medium storing thereon computer-readable instructions for performing a method in a backup cable modem termination system of restoring transmission of messages between one or more cable modems and the backup cable modem termination system upon failure of an active cable modem termination system, comprising:

instructions for receiving by the backup cable modem termination system subscriber information associated with the one or more cable modems from the active cable modem termination system, the subscriber information including one or more subscriber identifiers;

instructions for prioritizing the one or more cable modems by the backup cable modem termination system using at least one of the subscriber information or a time of receipt of the



subscriber information, the prioritized cable modems indicating an order in which the transmission of messages between the one or more cable modems and the backup cable modem termination system is to be restored; and

instructions for polling the one or more cable modems by the backup cable modem termination system in the order indicated by the prioritized cable modems such that communication between the one or more cable modems and the backup cable modem termination system is established in the order indicated by the prioritized cable modems, thereby enabling the transmission of messages between the one or more cable modems and the backup cable modem termination system to be restored.

33. (Previously Presented) A backup cable modem termination system adapted for restoring transmission of messages between one or more cable modems and the backup cable modem termination system upon failure of an active cable modem termination system, comprising:

means for receiving by the backup cable modem termination system subscriber information associated with the one or more cable modems from the active cable modem termination system, the subscriber information including one or more subscriber identifiers;

means for prioritizing the one or more cable modems by the backup cable modem termination system using at least one of the subscriber information or a time of receipt of the subscriber information, the prioritized cable modems indicating an order in which the transmission of messages between the one or more cable modems and the backup cable modem termination system is to be restored; and

means for polling the one or more cable modems by the backup cable modem termination system in the order indicated by the prioritized cable modems such that communication between

the one or more cable modems and the backup cable modem termination system is established in the order indicated by the prioritized cable modems, thereby enabling the transmission of messages between the one or more cable modems and the backup cable modem termination system to be restored.

34. (Previously Presented) A backup cable modem termination system adapted for restoring transmission of messages between one or more cable modems and the backup cable modem termination system upon failure of an active cable modem termination system, comprising:

a processor; and

a memory, at least one of the processor or the memory being adapted for:

receiving by the backup cable modem termination system subscriber information associated with the one or more cable modems from the active cable modem termination system, the subscriber information including one or more subscriber identifiers;

prioritizing the one or more cable modems by the backup cable modem termination system using at least one of the subscriber information or a time of receipt of the subscriber information, the prioritized cable modems indicating an order in which the transmission of messages between the one or more cable modems and the backup cable modem termination system is to be restored; and

polling the one or more cable modems by the backup cable modem termination system in the order indicated by the prioritized cable modems such that communication between the one or more cable modems and the backup cable modem termination system is established in the order indicated by the prioritized cable modems, thereby enabling the transmission of messages

between the one or more cable modems and the backup cable modem termination system to be restored.

35. (Previously presented) The backup cable modem termination system as recited in claim 34, wherein prioritizing the cable modems comprises:

prioritizing the cable modems according to at least one of scheduling type identified in the subscriber information, presence of secondary subscriber identifier in the subscriber information, or time of receipt of the subscriber information by the backup cable modem termination system from the active cable modem termination system.

36. (Previously Presented) The method as recited in claim 9, wherein the secondary subscriber identifier indicates whether the messages to be transmitted between the backup cable modem termination system and the associated cable modem includes high priority traffic.

37. (Previously Presented) The backup cable modem termination system as recited in claim 34, wherein the subscriber information indicates a priority assigned to each of the cable modems.

38. (Previously Presented) The backup cable modem termination system as recited in claim 34, wherein the subscriber information indicates whether real-time data traffic is to be transmitted in association with each of the cable modems, wherein prioritizing the cable modems includes prioritizing the cable modems according to whether real-time data traffic is to be transmitted in association with each of the cable modems.

39. (Previously Presented) The backup cable modem termination system as recited in claim 34, wherein the subscriber information is separate from messages transmitted between the cable modems and the active cable modem termination system.

40. (Previously Presented) The backup cable modem termination system as recited in claim 34, wherein the subscriber information indicates a type of the real-time data traffic to be transmitted.

41. (Previously Presented) The backup cable modem termination system as recited in claim 34, wherein the subscriber information indicates a type of data traffic to be transmitted in association with each of the cable modems, wherein prioritizing the cable modems includes prioritizing the cable modems according to the type of data traffic to be transmitted in association with each of the cable modems.